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REPORT OF THE STAFF OF THE NATIONAL OCEAN POLICY STUDY, 1974

PREPARED AT THE REQUEST OF

HON. WARREN G. MAGNUSON, *Chairman,*
Committee on Commerce

AND

HON. ERNEST F. HOLLINGS, *Chairman,*
National Ocean Policy Study

FOR THE USE OF THE

COMMITTEE ON COMMERCE

AND

MEMBERS OF THE NATIONAL OCEAN
POLICY STUDY

PURSUANT TO

S. Res. 222

NATIONAL OCEAN POLICY STUDY



FEBRUARY 7, 1975

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LETTER OF TRANSMITTAL

U.S. SENATE,
SENATE COMMITTEE ON COMMERCE,
Washington, D.C., February 5, 1975.

DEAR COLLEAGUE: On February 19, 1974, the United States Senate unanimously adopted Senate Resolution 222, authorizing a National Ocean Policy Study. The Committee on Commerce was directed by this resolution to conduct this Study because of its long-standing jurisdictional interest over national and international issues involving the oceans and coastal zones. However, the resolution recognized the diverse interests, including ocean policy issues, within the Senate and determined that there should be a mechanism for bringing them together wherever possible. To that end, the resolution required the appointment of two members from each of seven standing Committees to serve on the National Ocean Policy Study in an ex-officio capacity, along with six other members of the Study to be chosen from the Senate without regard to committee affiliation and appointed by the President Pro Tempore.

Shortly after adoption of the resolution the staff of NOPS began identifying major ocean policy issues and, together with the Chairman and participating members of the Study, conducted a series of hearings pertaining to one of the more important ocean policy developments, namely the extraction of oil and gas from the outer continental shelf and its environmental and socio-economic impact upon the nation's coastal zones.

The following report is a summary of the activities conducted during the first ten months of the National Ocean Policy Study. The materials presented herein not only review the efforts of the second session of the 93d Congress, but also outline the major directions of the Study during the 94th Congress.

We wish to emphasize that the conclusions and recommendations incorporated into this staff report, and which may prove to be controversial, have neither been approved, disapproved, nor considered by the Senate Committee on Commerce or the National Ocean Policy Study.

WARREN G. MAGNUSON, *Chairman,*
Committee on Commerce.
ERNEST F. HOLLINGS, *Chairman,*
National Ocean Policy Study.

INTRODUCTION

Senate Resolution 222, authorizing the Committee on Commerce to conduct a National Ocean Policy Study (NOPS), singled out a number of major subject areas to be considered in fulfilling the mandate of the Senate.

These include, but are not limited to:

- National capability in the Oceans;
- Adequacy of the Federal ocean program and government organization;
- Development and utilization of the non-living resources of the ocean;
- Implementation of the Coastal Zone Management Act of 1972;
- Understanding and protecting the global marine environment;
- and
- National and international jurisdiction over the oceans.

This report was prepared by the staff of the National Ocean Policy Study in an effort to identify, as closely as practicable, those endeavors initiated in response to the language of the Resolution, which is attached at this point in the Report.

A report on the Study work plan for the 94th Congress is available in a separate document issued by the Study in February, 1975.

TEXT OF S. RES. 222

RESOLUTION To authorize a National Ocean Policy Study

Whereas the oceans offer the potential for major contribution to world peace and to the quality of life, and the future of mankind may be dependent upon his knowledge and wise use of the sea; and

Whereas the oceans are of enormous present and potential benefit to all citizens of the United States owing to their extensive supply of living and nonliving resources and because of their utilization as a pathway for maritime commerce and as a continuing source of impact upon the national security, balanced growth, technology, scientific understanding, and the quality of the world environment; and

Whereas the depletable living and nonliving resources of the oceans will necessarily be utilized increasingly in future years as a principal source of protein, raw materials, and energy; and

Whereas the coastal margin of the United States, as one of the Nation's prime resources, is under ever-expanding pressure due to its desirability for siting of commerce, industry, and habitation, and due to increasing needs for recreation, transportation, urbanization, and biological reproduction; and

Whereas serious national and global problems exist and are growing in ocean contamination as a result of land- and vessel-source pollution; and

Whereas the Marine Resources and Engineering Development Act of 1966 (33 U.S.C. 2 et seq.) was enacted to develop a comprehensive, long-range national ocean policy, but such Act has been neither fully implemented nor completely successful in achieving that goal; and

Whereas the utilization of ocean resources and solving ocean-related problems depend directly upon developing oceanic knowledge and technology, resolving conflicts of national and international jurisdiction over the ocean, protecting the quality of the marine environment, and, foremost, upon establishing a clear and comprehensive national ocean policy: Now, therefore, be it

Resolved, That the Committee on Commerce is authorized under sections 134(a) and 136(a) of the Legislative Reorganization Act of 1946, as amended, and in accordance with its jurisdiction under rule XXV of the Standing Rules of the Senate, as amended, to make a full and complete investigation and study of national ocean policy for the purpose of—

(1) determining current and prospective national capabilities in the oceans, including marine sciences and their application, oceanic research, advancement of oceanic enterprise and marine technology, interdisciplinary education, policy planning, professional career and employment needs, and overall requirements of the United States consistent with the attainment of long-range national goals;

(3)

(2) determining the adequacy of current Federal programs relating to the oceans and recommending improvements in agency structure and effectiveness to meet national needs and achieve oceans capabilities, and assessing existing policies and laws affecting the oceans for the purpose of determining what changes might be necessary to assure a strong and internationally competitive ocean policy and program for the United States;

(3) establishing policies to achieve the goal of full utilization and conservation of living resources of the oceans and recommending solutions to problems in marine fisheries and their management, rehabilitation of United States fisheries, current and future international negotiations on fisheries, as well as aquaculture and the extraction of drugs from the sea;

(4) assessing the needs for new policies for the development and utilization of the nonliving resources of the oceans, including the mineral resources of the Outer Continental Shelf and the deep seabed so that the national mineral needs can be met in an economically and environmentally sound manner;

(5) encouraging implementation of coastal zone management through the Coastal Zone Management Act of 1972 by assessing national growth policy needs, regional and interstate problems, State functions and powers in coastal zone management, information sources, recreation needs, pollution problems, population trends, and future pressures in the coastal zone;

(6) establishing comprehensive national policy for the purpose of understanding and protecting the global ocean environment through education, exploration, research, and international cooperation; and

(7) making an assessment of proposals for, and current negotiations with respect to, achieving adequate national and international jurisdiction over the oceans, developing an understanding of the relationship of the oceans to world order, and examining United States policy with respect thereto.

SEC. 2. In order that other standing committees of the Senate with a jurisdictional interest over specific elements of this study under Rule XXV of the Standing Rules of the Senate, as amended may participate in that study, the chairman and ranking minority member of each of the Committees on Appropriations, Interior and Insular Affairs, Public Works, Foreign Relations, Government Operations, and Labor and Public Welfare, Armed Services, or a member of such committees designated by each such chairman or ranking minority member to serve in his place, shall participate in the study authorized by this resolution as an ex officio member of the Committee on Commerce for the purposes of this study. In addition, the President pro tempore of the Senate shall name three majority and three minority Members of the Senate who represent coastal States, without regard to committee membership, to serve as additional ex officio members of the Committee on Commerce for purposes of this study.

SEC. 3. The Committee shall report its findings, together with its recommendations for such legislation as it deems advisable, to the Senate.

CHAPTER I. BACKGROUND, ORGANIZATION AND NATIONAL ISSUES

For the past 15 years, the United States has experienced a widening national interest in the oceans. In part, this has occurred as the resources of the sea have come to play an ever-increasing role in fulfilling the commercial and industrial needs of society. However, in large measure this interest has been aroused by Congressional concern and leadership on matters involving ocean sources of energy, raw materials, living resources such as fish and shellfish, control zone management, pollution of the sea, transportation, and international law of the sea.

The beginning of this interest occurred in 1959 with the introduction of Senate Resolution 136 by Senator Warren G. Magnuson. That resolution, which passed the Senate, urged President Eisenhower to implement ocean policy recommendations contained in a joint report by the National Academy of Sciences and the National Research Council. Unfortunately, this call resulted in virtually no action by the Executive. In 1965, another attempt was made by Congress to stimulate the Administration. Led by Senator Magnuson, the author of the bill, Congress passed by an overwhelming vote the Marine Resources and Engineering Development Act of 1966. The Congress also enacted the National Sea Grant College and Program Act.

The Marine Resources and Engineering Development Act, a landmark in ocean legislation, established a Cabinet-level Council on Marine Resources and Engineering Development chaired by Vice President Hubert Humphrey. This Council was charged with the assignment of developing, overseeing and coordinating Federal ocean programs. The Act also created the Commission on Marine Science, Engineering and Resources, which was chaired by Dr. Julius Stratton, President Emeritus of Massachusetts Institute of Technology and chairman of the board of the Ford Foundation. This Presidential commission made a comprehensive investigation of all aspects of ocean policy and programs and recommended a national plan for the future in its report entitled, *Our Nation and the Sea*.

The three-year study by the Stratton Commission set forth a balanced, reasoned and far-reaching set of recommendations aimed at establishment of a progressive national ocean program, but only minimal implementation by the Executive was achieved. While the United States failed to develop a coherent oceans policy, other nations recognized the real value of a capability to use the world ocean for their own purposes.

In this century, the oceans have become widely utilized to obtain mineral resources from beneath the seafloor, living and non-living resources from the seafloor itself, and of course the living resources inhabiting the water column. Great gains in ocean science and technology have expanded the traditional uses of the sea for transportation, exploration, and fishing. This steady march of progress has resulted in political difficulties which, in turn, led to the convening of the

Third United Nations Conference on Law of the Sea, which, with 148 nations in attendance, constitutes the largest international conference ever held. The goal of this conference is to cast new international law governing the uses of the sea and its resources, a task which the United States delegation hopes will be concluded with a Law of the Sea Treaty in 1976.

Just as international community interest in assessing the problems of ocean space utilization have changed, domestic United States views toward the oceans' potential have also been experiencing a transitional period.

There may be a relationship between the United States' present economic condition both at home and abroad and an almost 30-year decline of our status as a world ocean power. Senator Magnuson pointed to this decline in a Senate speech on December 19, 1973, when he said:

During the past three years, virtually no policy initiatives dealing with the oceans have been taken by officers of the Executive Branch. Neither has there been a clear restatement of goals or determination to nurture prior ones * * *. Our voice at international conference tables has too often become a flaccid reaction to ploys and stratagems of other participants. The annual report of the President on ocean affairs * * * is only a pale shadow of earlier editions that set forth bold policy initiatives adopted by the Chief Executive and [is now] a candid recital of shortfall in accomplishments.

Senator Magnuson added that:

Bureaucratic infighting has again become inflamed. In the absence of high-level steering, there is grave hazard that familiar administrative diseases of delay, duplication and timidity will further weaken the program.

Senator Ernest F. Hollings, chairman of the Subcommittee on Oceans and Atmosphere, joined Senator Magnuson by blaming our decline as an ocean power with having a direct impact upon the energy crisis, the devaluation of the dollar, inflation, shortages of raw materials, lower demand for U.S. goods, the loss of American jobs, declining prestige and influence around the world, and the rise in the economic and political strength of competitors abroad.

Senator Hollings said a sound United States ocean program would:

- Reduce political dependency upon foreign basic resources while at the same time assure their political availability;

- Reduce the outflow of dollars by substituting ocean resources for foreign land-side resources;

- Increase our national earning power by producing and selling more ocean goods and services; and

- Assure our future national economic security by developing the technology to use promising new ocean resources for both energy and raw materials.

The United States has never had a permanent mechanism to establish national ocean policy in spite of the fact that Congress in 1966 enacted the Marine Resources and Engineering Development Act declaring national policy objectives in this area.* It was with this in mind that Senator Magnuson, Senator Hollings, and 60 other co-sponsors (including the chairman of every standing committee of the Senate) introduced on December 19, 1973, Senate Resolution 222 authorizing a National Ocean Policy Study.

The resolution outlines a broad list of issues which require examination including: marine fisheries, mineral resources and the consequences of their extraction, coastal zone management and national

*33 U.S.C. 1101-1108, Public Law 89-454.

growth policy, ocean transportation, research and technological needs, international law of the sea, government organization, ocean pollution, Federal budgetary requirements and ocean educational needs.

The scope of the study is reflected in the membership, which during the second session of the 93rd Congress included all of the members of the Senate Committee on Commerce, at least two members from each of seven other standing committees of the Senate having jurisdiction over matters relating to ocean policy, plus six at-large members appointed by the President pro-tem of the Senate.

The members of the Study were:

NATIONAL OCEAN POLICY STUDY

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FROM THE COMMITTEE ON GOVERNMENT OPERATIONS

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	EDWARD J. GURNEY, Florida (Alternate)

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EDWARD M. KENNEDY, Massachusetts	
(Alternate)	

FROM THE COMMITTEE ON ARMED SERVICES

STUART SYMINGTON, Missouri	WILLIAM L. SCOTT, Virginia
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LLOYD BENTSEN, Texas	BOB PACKWOOD, Oregon
J. BENNETT JOHNSTON, Jr., Louisiana	WILLIAM V. ROTH, Jr., Delaware

On February 19, 1974, the Senate approved S. Res. 222 authorizing the National Ocean Policy Study, and shortly thereafter, Senator Magnuson appointed Senator Hollings to become chairman of the Study. Senator Hollings stated:

I view the Ocean Policy Study as an action-oriented body that will do more than produce a final comprehensive report and then expire. We expect to give

strong impetus to necessary legislation and, if possible, influence executive decision making. It is evident that some ocean policy decisions cannot and will not wait for a final comprehensive report and will have to be dealt with as the issues arise. Hence, I expect that we will attack those issues first which require immediate resolution—such as deepwater ports, extension of the fisheries zone to 200 miles, agency reorganization, energy facilities siting in coastal areas, and impacts of accelerated development of Outer Continental Shelf oil and gas resources.

During its first 10 months, the National Ocean Policy Study paid special attention to the energy potential of the Outer Continental Shelf and the impact of its extraction upon the environmental and socio-economic conditions of the coastal zone. Five days of hearings were conducted in Washington; one day in Boston, Massachusetts; and two days in Los Angeles, California. The primary emphasis was upon questions of coastal zone land and water use planning and management and long-range energy needs of coastal states. The Study staff worked with the staff of the Committee on Interior and Insular Affairs, the Department of the Interior, the Council on Environmental Quality, and the National Oceanic and Atmospheric Administration, as well as the coastal states, in examining the problems inherent in the development of coastal areas adjacent to portions of the Outer Continental Shelf proposed for leasing which have never experienced such development in the past, such as parts of southern California, the Gulf of Alaska, and the U.S. east coast.¹

Government organization and the Federal Budget also received close attention during 1974. The staff of the Study worked with the staff of the Committee on Government Operations to discuss proposals on implementing improvements in agency operation. Such contacts will continue during the 94th Congress, with the aim of looking at the organization and effectiveness of the National Oceanic and Atmospheric Administration, the Department of the Interior, the National Science Foundation, the Oceanographer of the Navy, and other Federal agencies and offices with ocean-related responsibilities and missions. One goal of the Study will be to recommend alternative arrangements in government organization which would improve the efficiency of our nation's efforts in these areas.

The Chairman of the NOPS also worked with members of the Appropriations Committee on agency budgets in identifying and assessing portions of the President's Federal ocean program to determine if tax dollars were being well spent and meet national needs. A package of recommendations from the National Ocean Policy Study to the Appropriations Committee resulted in Senate adoption of a \$19.2 million appropriation to remove three Federal oceanographic research vessels from mothballs in 1974 and make them available through NOAA to assist the Department of the Interior in environmental research necessary for proposed expansion of OCS leasing in frontier areas. (Frontier areas are those which have not in the past experienced OCS oil and gas leasing and development.) An appropriation of \$6.63 million to launch the *Researcher*, the *Discover* and the *Miller Freeman* was approved by the Conference Committee as an amendment to the Special Energy Research and Development Appropriations Bill (H.R. 14434).

¹ See Chapter III of this report for a summary of the findings and recommendations regarding the pace of development of the Outer Continental Shelf, impacts upon the socio-economic and environmental conditions of the coastal zone, and the need for greater cooperation between the Federal Government, the States and private industry.

Also during 1974, the Study initiated a series of efforts aimed at providing Congress with new information which will be of immeasurable help in dealing with legislative issues affecting the oceans.

Foremost among these efforts was the establishment of the Ocean Project within the new Congressional Office of Technology Assessment. This was done at the request of Senator Hollings, Senator Edward M. Kennedy, Senator Ted Stevens, and other interested members of the OTA Board of Directors.

In November, after five months of preliminary planning, the OTA, at the request of the Committee on Commerce, let a contract for an evaluation of the potential risks and benefits to the coastal zone of oil and gas development off the coasts of New Jersey and Delaware. The assessment also will examine the advantages or disadvantages of alternative methods of petroleum recovery and the means by which exploration and production should be undertaken if deemed advisable. The assessment also will examine the probable effects, both onshore and offshore, of the introduction of two other energy-related technologies currently being proposed: deepwater ports for the importation of crude oil, and floating nuclear power plants which could provide electricity to coastal communities. The results of this assessment will be turned over to the National Ocean Policy Study to assist in making a report and drafting any required legislation.

The staff of the National Ocean Policy Study, working with the assistance of the Congressional Research Service of the Library of Congress, produced four reports during November and December, 1974. They were:

(1) *Outer Continental Shelf Oil and Gas Development and the Coastal Zone*, a summary of the basic issues involved and findings and recommendations pertinent to proposed rapid expansion of leasing in frontier areas of the OCS.

(2) *Outer Continental Shelf Oil and Gas Leasing off Southern California: Analysis of Issues*, which traces the history of the OCS controversy in California, including developments prior and subsequent to the Santa Barbara oil spill, along with findings and recommendations.

(3) *North Sea Oil and Gas: Impact of Development on the Coastal Zone*, a report based upon a Congressional staff examination of problems in Scotland caused by rapid development of oil and gas fields in the North Sea, and implications for United States policy.

(4) *The Economic Value of Ocean Resources to the United States*, a first-cut economic analysis of the importance of the ocean, with findings of significantly greater value to the U.S. economy than earlier realized.

The National Ocean Policy Study has asked the Congressional Research Service for several additional projects for the first session of the 94th Congress specifically related to government organization, fisheries management, coastal zone problems, and the relationship of the oceans to national economic security.

Additionally, the NOPS published *Coastal Zone Management, The Coastal Imperative: Developing a National Perspective for Coastal Zone Decision Making*, which is the transcript of the proceedings of the Second Annual Coastal Zone Management Conference of March 13-14, 1974.

The Ocean Policy Study also has established close working ties with the General Accounting Office, which has undertaken a series of projects requested by the Study Chairman.

An important concern is the goal of achieving the most effective Federal organization for the development and implementation of a coherent national ocean policy. Therefore, the chairman asked the Comptroller General for a major study by the GAO which surveys all Federal agency and departmental programs relating to marine science and oceanic and coastal zone affairs, identifying organizational and budgetary problems and recommending improvements. A two-volume report from GAO is expected early in 1975. Using the results of the GAO study, as well as planned Ocean Policy Study hearings, in conjunction with the Committee on Government Operations, and additional analysis by the Congressional Research Service, the National Ocean Policy Study expects to consider the need for revision in the organization of Federal ocean activities and to draft legislation for this purpose, if deemed appropriate.

The Committee and the Study also will draw upon the 1969 recommendations of the Commission on Marine Science, Engineering and Resources (Stratton Commission), the findings of the Ash Council in 1971, and the views of the National Advisory Committee on Oceans and Atmosphere in 1972 and 1973. All these groups identified difficulties inherent in the presently disorganized state of Federal ocean policy and found a need for a strong, viable oceanic agency or department to provide this important area of national concern with the visibility and attention it requires.

Additionally, the GAO is working on two other projects: (1) an analysis of problems in Federal-State fisheries management, and (2) a report on the opportunity to commercially fish for under-utilized species, notably the California anchovy.

The National Ocean Policy Study also has established a working relationship with the Domestic Council of the White House and with the Inter-Agency Committee on Marine Science and Engineering (ICMSE) so as to better communicate Senate views on ocean policy issues to the Administration. The Study has been informed that the Domestic Council will in 1975 establish a Subcommittee on National Ocean Policy. Moreover, ICMSE in 1974 established its own special Ocean Policy Subcommittee with the chartered goal of working closely with the Senate initiative launched by S. Res. 222.

In May, the NOPS requested that ICMSE initiate a study of the national capability and budgets approved for collecting, analyzing, interpreting, storing and disseminating ocean data for use in treating environmental impacts, extractive resources (such as oil and gas), and fisheries.

Part one of ICMSE's response, a report entitled *Ocean Data Resources*, was delivered to the National Ocean Policy Study in June of 1974. Part two of this effort, an analysis and interpretation of the efforts of the several Federal agencies and departments involved, was in the process of being edited at the time of publication of this report.

Additionally, each Federal agency with an ocean responsibility was asked to assign one of its officials to act in a liaison capacity with the National Ocean Policy Study in order to improve communication and coordinate between Congress and the Executive.

CHAPTER II. UTILIZATION AND CONSERVATION OF THE LIVING RESOURCES OF THE OCEAN

In 1973, Congress adopted Senate Concurrent Resolution 11 which recognizes as national policy full and complete Congressional support for a healthy domestic fishing industry. The resolution recognizes the present poor economic status of most of the nation's fisheries, the dangers to certain stocks of fish due to inadequate conservation practices, the pressures from foreign fishing fleets, and conflicting regulatory regimes. S. Con. Res. 11 sets forth congressional resolve to take measures to solve these problems and to strengthen and rehabilitate the sagging United States fishing industry. The adoption of this resolution signals renewed Congressional concern over the future of the ocean's potential to develop and maintain living resources. Fishing has been a long tradition of this country, both commercial and recreational. Much of our early history is based on fishing activities and the fishing industry remains the economic backbone of many coastal communities.

The United States and, indeed the world, has entered a new phase in fisheries policy. No longer can we say that the seas are bountiful, for the technological capability of removing living resources has exceeded the bounty. In short, the living resources are reaching that point at which it may not be possible to continue stocks at their present levels, given the amount of fishing effort now employed. International and national management policies have always been based on the fundamental precept that anyone can go out and capture fish. Easy access fishing has dominated the thinking of the fishing industry since the beginning. But now, as competition has grown and the object of the competition has been reduced, fishermen must face the very real necessity of controlling effort and managing fishing activities so that fish stocks are not irretrievably harmed.

It has only recently been noted that the failure of our domestic fishing fleet to meet the demand for fish desired by our population has resulted in an adverse balance of payments of 1.3 billion dollars. Prices have increased significantly. But one thing seems quite clear throughout the literature on the subject: if Federal government policies do not overcome past institutional handicaps, and do not improve efficiency and technological capability, the domestic fish harvesting industry will continue to decline, prices will rise further and imports will continue to take a larger and larger share of the United States market.

The domestic fishing industry, because of its past problems, faces two immediate difficulties: (1) declining stocks of fish; and (2) unwillingness on the part of the private financial investment community to provide the capital necessary to replace an outdated fleet and to

increase technological capability. (See *Our Nation and the Sea*, page 97, for a discussion of the impact upon fleet modernization of legal requirements that all U.S. flag vessels be manufactured in the United States, including fishing vessels.) In short, the United States fishing industry does not compete with the rest of the world, except in specific areas, most notably tuna, shrimp, and salmon.

The National Fisheries Plan

In response to growing problems related to the nation's marine fisheries, the National Advisory Committee on Oceans and Atmosphere recommended in its 1972 and 1973 annual reports that the Federal government develop a national fisheries posture. In response to their recommendations, the National Marine Fisheries Service (NMFS), a component of the National Oceanic and Atmospheric Administration, began the development of a national fisheries plan to address the future of U.S. fisheries. The plan will deal with the general approach to U.S. fisheries and will provide recommendations for national policy, legislation and programs to assure a healthy future for marine fisheries. In August of 1974, NMFS issued a draft outline for the National Fisheries Plan which identifies a number of major fisheries issues and suggests options for resolving the associated problems. The draft was intended to be a discussion paper for development of public views, to provide input from States, universities, recreational and environmental groups and other interested members of the public.

It is one of the primary goals of the National Ocean Policy Study to monitor the development of this plan and to provide information to the Congress about what it contains and what implications it has for legislative action. To assist the National Ocean Policy Study in an evaluation of the National Fisheries Plan, Senator Hollings, Chairman of the Study, requested the Ocean Policy Committee of the National Academy of Sciences to critique the National Fisheries Plan for the Ocean Policy Study. The Ocean Policy Committee's evaluation of the plan is expected some time early in the first session of the 94th Congress. At that point, it is expected that the Ocean Policy Study will begin a series of hearings on the question of the National Fisheries Plan and the role of marine fisheries in meeting the food needs of the nation.

International Fisheries Jurisdiction

Past history of the ocean saw continued observance of the maxim that the oceans are free for all to use and to take from. Much of the substance of this doctrine came out of fishing practices around the world and was based on the belief that fishery resources were inexhaustible. Clearly, the world now knows they are not inexhaustible, and one of the principle problems which the Third United Nations Law of the Sea Conference must solve is the question of controlling fishing activities so that world fish stocks are not depleted. In this respect, the Senate Ocean Policy Study will use its oversight of the law of the Sea Conference to evaluate growing jurisdictional problems in the world's oceans. Congressional interest has centered on the need for a 200-mile fisheries jurisdiction limit. This is a matter which will be closely followed by the Policy Study in conjunction with the Commerce Committee activities to extend the fisheries jurisdiction of the United States to 200 nautical miles.

Domestic Management

The world trend in fishery limits is presently toward an extended fisheries jurisdiction limit—most likely 200 nautical miles. If and when this occurs, managing the large expanse of ocean accruing to U.S. control will require government effort of unprecedented proportions. What will occur, in essence, is that United States fishery management jurisdiction will be substituted for existing bi-lateral and multi-lateral international agreements in the 200-mile zone. At present, however, the legal authority of the Federal government for management of a fishery resource, even in the present 9-mile fishery zone, is limited. Fisheries management in the United States has been lodged primarily at the State level, with the Federal government acting in a research, advisory, and coordinating role. The Federal government does become involved in fisheries management to the extent it negotiates and implements treaties with foreign nations.

This tradition of State government control over coastal fishery resources has caused several difficulties. For example, although the United States has a contiguous fishery zone of 12 miles, 9 miles seaward of the 3-mile territorial sea, there is no clear legal authority or program, State or Federal, to manage fishing in the last 9 miles of that zone. The State manages fisheries within 3 miles and has legal authority to manage its own citizens beyond 3 miles. States also have been managing citizens of other States who fish beyond 3 miles but who must bring their fish within its boundaries to sell or to transport. Because of this, there have been numerous inter-State disputes over regulations and some fishing has gone unregulated.

In addition, most fisheries management has been on a "license everybody" basis. Management is accomplished by restricting the efficiency of fishermen, by gear restrictions, shorter seasons, etc. But although some States are now realizing that the best way to manage fisheries is to restrict entry (that is, to restrict the number of fishermen and the amount of fishing effort on a particular stock so that fishermen make a good living and fish are conserved), progress has been slow. This is a matter of great interest to the Senate Ocean Policy Study and a matter which will be pursued in the next session. In addition, legislation has been pending before Congress to establish a national management program. In short, the fisheries management question is one of the most important issues presently facing the Senate Ocean Policy Study in formulating a National Fisheries Policy.

The National Marine Fisheries Service has also been conducting a number of programs to develop comprehensive management plans for fisheries to include special State-Federal relationships. This program is well underway and the Senate Ocean Policy Study has requested the General Accounting Office to do a review to—(1) evaluate domestic fishery management programs in terms of their effect in the areas of cooperation, coordination, over fishing, efficiency, restricting regulations and lack of basic management information; (2) identify needed corrective action; and (3) provide information that may be of assistance in proposed fisheries legislation. This report will be accomplished by reviewing NMFS's State-Federal fisheries management programs and individual State programs relating to fisheries management. It is expected that the GAO report will give the Ocean Policy Study information about problem areas and methods of solution which will guide it in fashioning recommended legislation for the Congress.

CHAPTER III. DEVELOPMENT AND UTILIZATION OF NON-LIVING RESOURCES OF THE OCEAN

The second session of the 93rd Congress began at a time when oil supply problems were at the center of national attention. For the average citizen, the most noticeable impact of the Arab oil embargo, which was at its peak in January and February of 1974, was the troublesome combination of long lines, limited purchases and high prices at gasoline stations. On January 23, President Nixon announced government actions to increase domestic energy supplies, particularly oil and gas, in order to avoid such disruptive experiences in future years. Specifically, the President announced his intention to accelerate development of Federally-owned oil and gas resources on the Outer Continental Shelf (OCS). To accomplish this end, the Department of the Interior was directed by the President to lease up to 10 million acres of OCS lands for oil and gas exploration and development annually, beginning in 1975. Extension of OCS leasing into new areas—the Atlantic and the Gulf of Alaska—would not be undertaken, the President said, before completion of a comprehensive environmental assessment then in progress in the Council on Environmental Quality. CEQ issued its report in April 1974.

Following the passage of Senate Resolution 222, establishing the National Ocean Policy Study, the chairman of National Ocean Policy Study selected the offshore oil and gas issue as the subject of the Study's first hearings. Five days of hearings were held in Washington in April and May, followed by field hearings in Boston in August and in Santa Monica in September. The impact of OCS oil and gas development on the coastal zone was the central focus of these hearings. Such impacts include a proliferation of support facilities such as supply bases in harbors to service offshore drilling rigs and production platforms; construction sites for platforms; landfalls and terminals for subsea pipelines; tanker terminals; tank storage farms; helicopter and airport facilities; refineries and petrochemical plants. In addition to these direct impacts, offshore development also brings about ripple effects in the economic and social structures of coastal areas. These secondary impacts include population shifts, employment dislocations, new requirements for public facilities and services, land-use changes and alteration of air and water quality. Onshore impacts of offshore oil often include both beneficial and harmful aspects. Yet even beneficial effects, such as expanded employment opportunities and rising income levels, require careful planning in order to assist coastal States and communities in coping with the processes of change and growth.

The early stages of National Ocean Policy Study hearings examined the findings and recommendations of the Council on Environmental Quality's report to the President assessing environmental effects of OCS oil and gas development. Since CEQ had identified—but failed to assess fully—the coastal effects of offshore oil, testimony and ques-

tions at these hearings were aimed at filling that gap. In addition, witnesses discussed the need for better cooperation between States and Federal OCS planners, and coordination between the offshore oil leasing program and the Coastal Zone Management program.

Further testimony centered on inadequacies of present regulation and enforcement in the area of offshore safety and environmental protection, particularly in the prevention of accidental oil spills. Other problems inherent in current OCS activities identified by National Ocean Policy Study witnesses included a failure by the Interior Department to obtain and publish adequate resource data; barriers to competition in the bonus bidding system; and the lack of connection between the 10-million-acre leasing proposal and any identifiable national energy policy.

All these issues were examined extensively in a report entitled *Outer Continental Shelf Oil and Gas Development and the Coastal Zone*, released by the staff of the National Ocean Policy Study in November 1974. The report contained three major recommendations:

1. There should be early enactment of legislation to improve OCS policies and practices, along the lines of the Energy Supply Act of 1974 (S. 3221) as passed by the Senate on September 18, 1974.
2. No leasing of offshore oil and gas lands should occur in frontier areas until the Interior Department demonstrates that such leasing is clearly necessary, safe, and in the public interest.
3. The proposed 10-million-acre OCS leasing program for 1975 should be replaced with a more realistic lease target based on sound management principles for publicly-owned resources.

A second report, based on testimony and issues raised at the California field hearings, was also released in late 1974. That report was titled *Outer Continental Shelf Oil and Gas Leasing Off Southern California: Analysis of Issues*. National Ocean Policy Study work on offshore oil issues was rounded out by publication of a third report on *North Sea Oil and Gas: Impacts of Development on the Coastal Zone*.

The Members and staff of the National Ocean Policy Study were also active during the second session of the 93rd Congress in the Senate passage of S. 3221, a bill to amend the Outer Continental Shelf Lands Act of 1953, working closely in this task with the Committee on Interior and Insular Affairs. Since the House of Representatives has not passed similar legislation, further legislative activity in this area is expected during the 94th Congress.

The Chairman of the Commerce Committee and the Chairman of the National Ocean Policy Study introduced a package of amendments to S. 3221 on the floor of the Senate on September 18, 1974. These amendments, which were adopted by the Senate, were designed to ensure proper consideration and amelioration of coastal impacts of offshore oil and gas development, with recognition of the Coastal Zone Management Act as the proper mechanism for achieving this end.

Section 101 of the bill was amended through National Ocean Policy Study efforts to include the following findings:

* * * * *

(9) It is the national policy to preserve, protect, and develop the resources of this Nation's coastal zone, and to provide for the orderly siting of energy facilities therein;

(10) The development, processing, and distribution of the oil and gas resources of the Outer Continental Shelf, and the siting of related energy facilities, may cause adverse impacts on the coastal zones of the various coastal States; and

(11) The Coastal Zone Management Act of 1972 provides policy, procedures, and programs designed to anticipate such adverse impacts and in part prevent

them by appropriate planning and management of land and water resources in the coastal zone.

Further, Section 201, which sets national policy for the Outer Continental Shelf, was amended upon the initiative of the Commerce Committee and National Ocean Policy Study chairmen to include the following subsection:

(d) It is hereby recognized that development of the oil and gas resources of the Outer Continental Shelf will have significant impact on coastal zone areas of adjacent States and that, in view of the national interest in the effective management of the coastal zone, such States may require assistance in protecting their coastal zone insofar as possible from the adverse effects of such impact.

The bill implements this policy by establishing a Coastal State Fund to make grants to affected coastal States:

To assist coastal States impacted by anticipated or actual oil and gas production to ameliorate adverse environmental effects and control secondary social and economic impacts associated with the development of Federal energy resources in, or on the Outer Continental Shelf adjacent to the submerged lands of such States.

The fund is financed from OCS oil revenues, with a limit of 10% of these revenues, or the equivalent of \$.40 per barrel, whichever is greater.

An amendment introduced by the Chairman of the Commerce Committee and the Chairman of National Ocean Policy Study gave the Secretary of Commerce the authority to issue regulations and establish requirements for grant eligibility, and directed the Secretary to "coordinate all grants with management programs established pursuant to the Coastal Zone Management Act of 1972."

National Ocean Policy Study efforts with regard to legislation on offshore oil and gas development during the 94th Congress will again focus on coastal zone impacts, as well as other issues affecting national ocean policy.

The National Ocean Policy Study is in a unique position to serve as a point of communication among parties interested in OCS oil and gas development and coastal zone management. This informal function was carried out during the first year of study activities through meetings, seminars, and other informal contacts with concerned Federal agencies, congressional staff, the Office of Coastal Zone Management in NOAA, environmental and industry representatives, and the affected States. This activity is regarded as particularly fruitful for improving understanding and agreement about OCS and coastal issues, and will continue to be an important National Ocean Policy Study effort.

Other subjects involving the question of ocean-based non-living resources include sand and gravel extraction, and placer mining from submerged lands and the Outer Continental Shelf and the extraction of manganese nodules from the floor of the deep seabed beneath waters beyond the limits of national jurisdiction (international waters).

The National Ocean Policy Study worked with the Committee on Interior and Insular Affairs, Subcommittee on Mines and Mining, which has conducted hearings on legislation pertaining to deep seabed hard mineral mining during the 93rd Congress and previous Congresses. The Study will continue to cooperate and to serve as a means of communicating various views on this subject during the 94th Congress.

CHAPTER IV. IMPLEMENTATION OF THE COASTAL ZONE MANAGEMENT ACT OF 1972

During the course of legislative developments in 1974, the Study maintained vigilant oversight responsibility to assure that the implementation of the Coastal Zone Management Act of 1972 (Public Law 92-583) was consistent with Congressional policy. The Study will make additional efforts during the 94th Congress, through hearings and other means, to assure that the Act continues to serve State and national needs.

The Act was designed to provide assistance, both financial and technical, to State and local governments for developing and managing State coastal zone management programs. Beginning planning efforts in 1974 and 1975 come at a time of intensified pressure on the coasts. The rapidly increasing population along the coasts of the Atlantic, Pacific, Gulf of Mexico and the Great Lakes; the rush to develop the few remaining natural beach areas; the draining of ecologically-important wetlands; the threat of pollution from a myriad of heavy industries locating in coastal areas; and the increased recreational pressures, are just a few of the issues that the Coastal Zone Management Act was intended to help solve.

It was the intention of Congress that the Act generate development of appropriate mechanisms at the State level which would develop plans and policies and make necessary judgments concerning the allocation and use of the finite resources of the coastal zone. This process is presently well underway in all but one coastal State. Once a State program is developed, it will be subject to a Federal inter-agency review process and approval of the Secretary of Commerce to assure that the program is in keeping with the national interest. At the same time, Federal activities, including activities requiring a Federal license or permit, affecting an approved State coastal zone management program, are to be consistent, as nearly as possible, with that program.

At the beginning of the 93d Congress, the future of the Coastal Zone Management Act looked shaky at best. President Nixon had signed the Act reluctantly in the fall of 1972, and when the fiscal year 1974 budget appeared shortly thereafter on Capitol Hill, it ignored the Act and made no provision for money to implement the program. Only because of the continued persistence of members of the Committee on Commerce did the Administration finally reverse its position and agree in August of 1973 to send a supplemental budget request to Congress to fund the program.

At the beginning of 1975, any doubt as to the importance of the Coastal Zone Management Act has been laid to rest by the energy crisis and related developments in the international petroleum market. These events have transformed the Act from a desirable tool for managing coastal resources, to an essential one.

The coastal zone is the focal point for much of our nation's immediate energy needs. At the same time it is home for 75 percent of our population and a playground for millions of other Americans. Coastal zone management programs, being developed pursuant to the Coastal Zone Management Act of 1972, are the one available mechanism which can provide the comprehensive planning and management of coastal areas necessary to accommodate large-scale energy developments and at the same time provide for the protection of environmental, recreational, and cultural amenities of coastal areas so important to all Americans.

In the near future a wave of energy-related developments will descend upon the coastal zone on a scale unmatched in our history. In 1975 alone, the Administration is planning to lease over 10 million additional acres of oil and gas leases on the Outer Continental Shelf for immediate development. Support facilities such as refineries, tank farms, and pipelines will be required, many of which will, of necessity, be located in the margins of coastal land. At the same time, plans are being finalized for the construction of deepwater ports to accommodate the supertankers which will bring the billions of barrels of foreign oil necessary to sustain our economy until conservation methods, improved domestic production, or alternate energy sources can decrease our dependence on foreign sources of fossil fuel energy. Coastal areas also will serve as sites for offshore floating nuclear power plants, petrochemical plants, liquefied natural gas (LNG) reception ports, and a variety of other energy facilities. The magnitude of this development and its implications for the quality of life in coastal areas requires close Federal-State coordination in every phase of energy decisionmaking. The Coastal Zone Management Act provides the framework for accommodating both National and State interests in achieving multiple use of the coastal zone without denying the public the benefit of badly-needed energy resources.

In the short period since appropriations were first made available, the National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce, the agency authorized to administer the coastal zone program, has moved expeditiously to make initial program development grants (section 305) available to the coastal States and territories. With appropriations having been available for little more than a year, 31 of 34 eligible States and territories have already applied and received grants and are moving to develop their coastal zone management programs.

As yet, no coastal State is far enough advanced in developing its program to qualify for section 306 grants for administration and management. At the most, four or five States are expected to qualify for grants during fiscal year 1975. Nevertheless, NOAA is in the process of finalizing regulations for section 306 and is prepared to begin implementing the management phase of the Act.

While a majority of the coastal States have expressed an interest in obtaining a grant for the development of an estuarine sanctuary, only one State, Oregon, has received a grant for an estuarine sanctuary under section 312 of the Act. NOAA is currently reviewing applications for estuarine sanctuaries in other States and expects several more grant applications to be approved during 1975. Over 20 States have

expressed an interest in having an estuarine sanctuary in their coastal zone.

During the course of general review of the Coastal Zone Management Act by the National Ocean Policy Study, it developed that there were certain changes in the Act which were necessary to improve the administration of grants. As a result, Senator Hollings introduced S. 3922 on August 19, 1974, which was reported by the Committee on December 17. The House version of the bill (H.R. 16125), which was similar to S. 3922 was passed by the Congress on December 19 and was approved as Public Law 93-612 on January 2, 1975.

The Coastal Zone Management Act Amendments of 1974 made several technical changes in the Act. First, they provide for increased authorization for section 305 program development grants from \$9 million to \$12 million. Experience gained during the initial stages of the Act's existence indicated that the \$9 million level of authorization provided in the original Act would be inadequate to fund State programs in fiscal year 1975. In addition, the energy crisis increased dramatically the need for coastal States to accelerate the development of their coastal zone management programs in order to cope with the anticipated impacts of accelerated offshore oil and gas development, deepwater port construction, and associated onshore support facilities, such as refineries, tank farms, and pipelines. Testimony gathered in hearings by the National Ocean Policy Study emphasized the Coastal Zone Management Act as a major decisionmaking tool to be employed by States in the control of direct, secondary, and tertiary onshore and nearshore impacts of offshore energy development. Based on these findings, the Committee felt that an increased authorization for section 305 grants would be necessary immediately.

A second amendment removed the 10 percent limitation on the amount any State could receive from the total appropriated for section 306 management grants and replaced it with specific annual dollar limitations. Each State can now receive, at most, \$2 million for fiscal year 1975; \$2.5 million for fiscal year 1976; and \$3 million for fiscal year 1977. By proposing this amendment, the Committee hoped to solve an unusual situation which is expected to occur only at the beginning and the end of the management phase of the coastal zone program. Obviously, all States will not complete their coastal zone programs at the same time; therefore, those States completing their programs early, or late, as the case may be, would have been at a serious disadvantage since they would have been limited to 10 percent of the amount appropriated for section 306. The new language insures a maximum limit on the grants while providing enough flexibility to make grant assistance available when and where it is most needed.

Finally, H.R. 16125 extended the estuarine sanctuary grant authority for an additional three fiscal years, through fiscal year 1977. Originally, the Act provided for \$6 million for the first year after enactment only, and therefore expired on June 30, 1974.

The legislative history of the estuarine sanctuary provision of the Act supports the contention that this element of the program was intended to serve as an integral part of the overall coastal zone management programs of the coastal States. The sanctuary program was designed to provide States with long-range assistance in acquiring and

operating natural field laboratories in which techniques and approaches proposed to be incorporated within their coastal zone management programs could be tested and perfected. The Congress felt it important that a system of estuarine sanctuaries be established and be representative of the principal types of estuarine systems found along our Nation's coastlines, of which 11 broad types have been identified. While only one State has received a grant under this section so far, it is expected that considerably more than the initial authorization of \$6 million is necessary to establish a complete estuarine sanctuary system.

The amendments which passed in 1974 were necessary for the improved administration of grant assistance. A number of other amendments which would make substantive changes in the Act were introduced in the 93d Congress and are expected to be reintroduced next year and referred to the Committee for consideration.

One amendment which passed the Senate as part of S. 3922, but which was omitted in the final version enacted by the Congress, provides for extending section 305 program development and section 306 administration grants for an additional two years beyond the fiscal year 1977 deadline imposed by the Act. The Committee recommended favorable passage of this amendment in order to compensate coastal States for the loss of a year in grant assistance and to provide additional assistance for those States expected to be impacted by accelerated offshore oil and gas development.

Other amendments focused on the coastal zone management aspects of OCS leasing. One amendment, which was introduced in the House and considered in hearings before the Merchant Marine and Fisheries Committee, provided for a two year delay in leasing on the Outer Continental Shelf to allow States to complete their coastal zone management programs and hence bring the federal consistency provision of the Act to bear in the OCS decisionmaking process. Another amendment, introduced by Congressman Glen Anderson (D-Calif.), provided for amending the Act to require State approval of oil and gas activities seaward of a state established marine or estuarine sanctuary.

Congressman Michael Harrington (D-Mass.), proposed an energy facilities siting component to the Coastal Zone Management Act by providing grants from a proposed \$150 million fund to coastal States for the designation of sites for future power plants, refineries and other energy-related developments. The Ocean Policy Study and the Commerce Committee plan to consider similar proposals and to explore the present language of the Act in order to determine if current provisions for State designation of sites for possible energy facilities are adequate or in need of revision. At the request of Senator Hollings and other members of the Ocean Policy Study, OTA has begun a major study of the growth implications of energy facilities siting, including an examination of the adequacy of the Coastal Zone Management Act as a vehicle for accomplishing energy facilities siting in coastal areas. The Study expects that the results of this study will be instrumental in formulating an effective siting policy, including an effective procedural mechanism, in the coastal zone.

Still other amendments which have yet to be formally introduced are being considered to deal with emerging problem areas. One amendment under study would provide badly needed interstate planning and management grants. At present, coastal States must allocate a portion of their grant money to any interstate agency they designate to assist in the reconciliation of regional and interstate problems. Despite this shortcoming, some regional agencies, such as the New England River Basin Commission, are actively involved in the coastal zone management process and promise to play an even greater role once proper funding is made available.

The Committee also plans to consider an amendment which will provide more funding for research and development associated with the development of coastal zone management programs. The National Advisory Committee on Oceans and Atmosphere (NACOA) has recommended in its annual report to the President and to Congress that the Coastal Zone Management Act "be amended to provide for research and development as needed to support management of the coastal zones within the states." NACOA envisions these new research grants as being used for short-term, highly-responsive analytical studies that may be required in support of local decisionmaking concerning the allocation of coastal resources. A closely-related issue that merits attention is the role of the National Sea Grant Program in providing information for coastal zone management.

NACOA has also recommended that the funding for the Act be substantially increased. Appropriations for fiscal year 1974, the first year of the Act's existence, amounted to \$12 million, of which only \$7.2 million was available for coastal zone planning grants. Twelve million dollars was also appropriated for fiscal year 1975. The Administration has announced that it will request a supplemental appropriation of \$3 million for fiscal year 1975 to assist coastal States plan for impending OCS development. However, NACOA and many coastal States have indicated that a much higher level of funding will be necessary if coastal States are going to be adequately prepared for the effects of anticipated energy-related activity. The Committee expects to examine the need for increased planning assistance during the first session of the 94th Congress.

The National Ocean Policy Study will continue to conduct oversight over progress by NOAA in developing review criteria by which completed state coastal zone management programs will be approved by the Secretary of Commerce. This process entails defining what is the "national interest" in the coastal zone and establishing regulations for States to follow to assure that the national interest is protected in their completed programs. These regulations are presently in draft form and are available for comment. It may be necessary to conduct a series of hearings on the national interest question early in the next session in order to air some of the issues that have begun to surface.

CHAPTER V. UNDERSTANDING AND PROTECTING THE GLOBAL MARINE ENVIRONMENT

There is growing concern that the dispersal of pollutants—everything from DDT to monofilament fishnets—is becoming worldwide. Once a substance considered a pollutant is produced, either by man or by natural processes, unless it is contained at its source, it inevitably finds its way into the ocean ecosystem. Some substances enter the ocean through river runoff, others are transported atmospherically, while still others are introduced into the ocean more directly, as when a tanker breaks up at sea, or a vessel intentionally discharges oil from its bilges. There are numerous activities which contribute to ocean pollution. Included among these are waste heat disposal, industrial effluent discharge, ocean dumping, air pollution, marine mining, energy development, nuclear energy, marine transportation, and storm runoff.

For the last several years, there has been growing concern about ocean pollution. Congress has mobilized to do certain things to alleviate the problem and has continued to follow and examine the success of those attempts to determine if further action is needed. Recent Federal legislation such as the Clean Air Act Amendments of 1970 (Public Law 91-604) may be expected to reduce the atmospheric transport of pollutants which eventually leave the ocean by exchange across the air/sea interface. Other legislation, namely the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), and the Marine Protection Research and Sanctuaries Act of 1972 (Public Law 92-532), may be expected to significantly reduce direct ocean pollution. The Federal Water Pollution Control Act Amendments have as their target the control and eventual elimination of the discharge of pollution substances; for example, industrial effluents put into navigable waters in the oceans at large. The National Oceanic and Atmospheric Administration, the Environmental Protection Agency, the Corps of Engineers, and the Coast Guard, in implementing the requirements of the Marine Protection, Research and Sanctuaries Act, are concerned with a principal source of pollution—ocean dumping. These agencies have begun to carry out the permanent provisions of this legislation.

In addition, there have been international efforts to control ocean pollution which recently resulted in a new International Convention on Pollution from Ships as well as the establishment of the U.N. Environmental Program which followed the very successful World Environment Conference in Stockholm, Sweden. Developments in the international area have been monitored closely by various committees in the Senate, and will be one of the assigned tasks of the National Ocean Policy Study in the coming Congress. Of special interest to the Ocean Policy Study will be the successful implementation of recent

legislation establishing a new Bureau of Oceans, International Environmental and Scientific Affairs in the Department of State. The National Science Foundation is presently supporting work relating to ocean pollution, a substantial portion of which is being carried out under the auspices of the International Decade of Ocean Exploration Program (IDOE). Thirty-two nations are contributing to this program, which is directed toward the preservation of the quality of the marine environment. IDOE has sponsored an intensive project aimed at taking measurements at sea of the concentration of compounds considered potentially hazardous to man or marine life.

The basic problem facing those who wish to control ocean pollution is understanding the extent and effects of contamination. The general process usually involves, first, the establishment of environmental baselines with respect to the physical, chemical and biological processes of the ocean. This would include gathering information about the distribution of fish, shellfish, bottom dwelling organisms, and so on. It would also determine the basic speed and direction of current movements—a critical mechanism in the transport of pollutants. Second, any assessment would take note of the changes induced in the system by the polluting activity and then would assess the consequences and implications of these changes. Third, there would be required to be an improvement of man's ability to protect the consequences of his activities that pollute the environment. This would raise the question of environmental monitoring through sensors on satellites, buoys, ships, and other platforms which gather information.

Where the protection of the marine environment is concerned, the importance of creating an enforcement mechanism with the capacity to enforce provisions of pollution conventions cannot be over-emphasized. This raises the question of national and international regulatory jurisdiction in the world's oceans, a matter which will be discussed in the next chapter. Regulatory machinery must be established which is able to exercise jurisdiction both from a point of origin and source of injury point of view, including events which occur on land. Enforcement is critically important to effective control of marine pollution.

Of special interest to the Senate Ocean Policy Study in the coming session will be two matters: one, the question of petroleum in the marine environment, and two, efficiency of the organizational framework, both at the international and national levels, to assess the extent of marine pollution, monitor its presence, and prescribe remedies. The problem of oil pollution has been a growing one, and one which was the subject of a recent publication by the National Academy of Sciences. The study estimated that the quantity of petroleum hydrocarbons entering the oceans today has been variously estimated to be from 5 to 10 million metric tons per annum. The principal source of this contamination has been from transportation, from the operations of tankers, dry docking, terminal operation, builders, and vessel accidents. However, the study indicated that information on the effects of oil contamination on the biology and on human health are woefully lacking. The subject matter of this study is very important to a full consideration of tanker construction standards and oil pollution liability, matters into which the Senate Ocean Policy Study will assist the Commerce Committee in looking at closely.

As concern over the problem of oil pollution has grown, so have the number of agencies involved at the international, national and State level. It would appear to be proper at this juncture to go back and reexamine the institutional mechanism by which we make decisions and set policy in this area. This will also be a subject of great interest to the Senate Ocean Policy Study. In this respect, the Ocean Policy Study has requested the Ocean Affairs Board of the National Academy of Sciences to provide assistance in evaluating this area, and we expect that a study will be available during the first session from the Ocean Policy Committee.

CHAPTER VI. NATIONAL AND INTERNATIONAL JURISDICTION OVER THE OCEANS

During the 2nd session of the 93rd Congress after nearly five years of preparation, the much-heralded Third United Nations Law of the Sea Conference met in Caracas, Venezuela, in the summer of 1974. Billed as the largest international conference ever held, the Caracas session brought together nearly 150 nations to deal with an agenda containing well over 100 items. This Third Law of the Sea Conference was decidedly unlike the previous two such conferences. The previous conferences were essentially legal-technical affairs, relatively isolated from the pressures of contemporary world politics. However, the Caracas session evidenced that this third Conference would not be simply a technical affair, but rather would be a political one, susceptible to the United Nations politics of the day and subject to the continuing tug and pull of have and have-not nations.

At the preparatory sessions and again at the substantive session in Caracas, several members of the Senate Committee on Commerce were designated to represent the Senate and the Congress: Senator Warren G. Magnuson, Chairman of the Committee; Senator Ernest F. Hollings, Chairman of the National Ocean Policy Study; and Senator Ted Stevens, ranking minority member of the Subcommittee on Oceans and Atmosphere. In addition, the staff of the Committee followed developments in the Law of the Sea negotiations and closely monitored the activities of the United States delegation attending the Conference. Consequently, the Senate Committee on Commerce, following its jurisdictional mandate, has been actively involved in the United Nations Law of the Sea Conference and expects to continue its monitoring and oversight activities into the next Congress, largely through the mechanism of the National Ocean Policy Study. The Law of the Sea Conference will soon reconvene, this time in Geneva from March 10 to May 10, 1975.

However, there is serious questions as to whether, in the limited time available, all of the major issues confronting the Conference will be successfully negotiated and an acceptable, overall Law of the Sea Treaty developed. One of the reasons for this doubt is that the Caracas session was generally considered to be unproductive during its ten week life span. Observers attending the session indicated that most of the nations were not as yet willing to negotiate, that is, willing to begin to trade their desires with other nations in order to come up with the compromises needed for overall agreement. The United States delegation felt that if alternate treaty articles could be drafted, Caracas would be a success. This was not done, and general consensus is still in a vague and undefined state. In short, the Third United Nations Law of the Sea Conference is trying to settle, in a single treaty, all legal issues relating to the use, development, and protection of ocean space. But there is still uncertainty as to whether this can be accomplished.

Prior to 1958, when the First Law of the Sea Conference met, legal principles governing the conduct of nations in the oceans was developed primarily through the action of claim and counter-claim. By this process, one nation makes a claim in the ocean to protect or advance what it believes to be its legitimate interests and other nations then evaluate that claim as to its reasonableness, either accepting or rejecting it. It was for the first time in 1958 that the United Nations attempted to codify the Law of the Sea on a multi-lateral basis. This first Conference resulted in the formulation of four sea law treaties: the Convention on the High Seas; the Convention on the Territorial Sea and the Contiguous Zone; the Convention on the Continental Shelf; and the Convention on Fishing and Conservation of the Living Resources of the High Seas. The Second Conference, held in 1960, met to deal exclusively with the most critical questions of the maximum breadth of the territorial sea and the rights of coastal nations to control fishery resources off their shores and beyond their territorial limits. However, the 1960 Conference failed to settle either question and many significant gaps in international law of the sea remain. Since that time international law on ocean activities has evolved in response to unilateral claims by nations, especially with respect to fishery jurisdiction.

Expanding technology and increased reliance on ocean resources quickly began to expose the weaknesses of the previous four agreements and law of the sea generally. The largest area of uncertainty has been coastal fisheries jurisdiction. Further, the number of new nations has grown rapidly, some of which do not recognize the 1958 agreements as binding on them. After only less than ten years practice under the results of the 1958 conference, world consensus decided on a new attempt to solve the vexing legal issues of ocean use. It was for this reason in 1970 that the United Nations formed a preparatory committee to plan the Third Law of the Sea Conference.

Subjects being discussed by the Conference include the following: international regime for the sea-bed and ocean floor beyond national jurisdiction; the nature and characteristics of the territorial sea; the nature and characteristics of the contiguous zone; the rights of passage and navigation in international straits; the continental shelf; the concept of an exclusive economic zone beyond the territorial sea; nature and characteristics of the high seas; coastal state preferential rights over resources beyond the territorial sea; preservation of the marine environment; scientific research; land-locked countries; rights and interests of shelf-locked states; the development and transfer of technology; peaceful settlement of disputes; and several others.

Most hope that the Conference will conclude its work in Geneva this spring and then adjourn to Caracas to sign the Convention. Knowledgeable observers believe, however, that there will have to be an additional working session which must precede the signature session in Caracas. In fact, many conclude that it will not be until at least 1976 that a final, or near-final, treaty document will be put together. The process of receiving proposals, evaluating and separating them and reducing them to a few alternatives is time consuming and difficult. But there was an evident lack of will to negotiate in the last session

and there is reason to suspect that it may continue in Geneva despite leadership attempts to bring the Conference to a conclusion.

One of the areas the Senate directed the National Ocean Policy Study to examine is the Law of the Sea Conference, including "an assessment of proposals for and current negotiations with respect to, achieving adequate national and international jurisdiction over the ocean, developing an understanding of the oceans to world order, and examining United States policy with respect thereto." The National Ocean Policy Study plans to conduct oversight hearings, monitor U.S. delegation activities, and advise the Senate of further developments in the Third U.N. Law of the Sea Conference.

SUMMARY

The work of the National Ocean Policy Study during 1974 was a reflection of the changing patterns of national concern about the oceans. During the 1960's, much legislative and administrative effort was aimed in the direction of scientific research and informational services. During the mid-1970's, however, it is increasingly clear that the emphasis will be upon ocean resources and utilization of ocean and coastal zone space. NOPS activities in the 94th Congress will be directed toward these matters in a continuing effort to fulfill the mandate of Senate Resolution 222. (For a more complete explanation of NOPS work plans in the 94th Congress, see the report of the staff of the NOPS on future planning guidelines, February 1975.)

